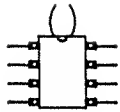


South Bay Users Group

Contents Copyright SBUG 1986



DYNAMIC MEMORIES

AUGUST

88

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
	1	2	3	4	5	6
7	8	9 CLUB MEETING	10	11	12	13

This prints all characters in Character Map 1

	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	:
000																					:
020																					:
040	E	e	e	e	e	i	i	i	i		N	N									:
060																					:
080																					:
100																					:
120																					:
140																					:
160																					:
180																					:
200																					:
220																					:

From Word Perfect



**References**

1

## DYNAMIC MEMORIES

AUGUST 1988

### SBUG STEERING COMMITTEE

TITLE	NAME	USERNAME	PHONE
Chairman:	Chris Oman	OMAN	(408) 985-9460
Treasurer:	Henry Schulze	HENRY	(408) 866-5731
Editor	Joel Lee	EDITOR	(408) 926-3999
Librarian:	Bernie Thompson	BERNIE	(408) 867-7455
Librarian:	Frank Gottschalk	FRANK	(415) 651-2313
Sysops:	Wright Huntley	WRIGHT	
	Jim Gonsalves		(408) 241-9347
Technik:	Frank Vanslager		(408) 257-3647

OTHER KEY INDIVIDUALS Cover designer: Wright Huntley

Host computer: SBUG , ALL (408) 249-8259

If the need arises feel free to give anyone of us a call  
\*\*\*\*\*

## THE EDITOR'S BYTES AND BITES

My Random House Dictionary of the English Language, Second Edition Unabridged defines editor (definition # 3) as "a person who edits material for publication---". As editor of DYNAMIC MEMORIES I have written over 95% of all the material contained therein for the last 3 years. One may say that I have gone considerably beyond what is expected of an editor.

I could probably do it indefinitely, but lately I have been having some health problems. I have a living to earn also. Aside from that, the newsletter just can't be as interesting when only one person does all the writing. You aren't really reading a newsletter, you are, if you read it, a devotee of a sitcom.

Another aside is that my technical knowledge will never get me the Nobel prize. Nor any other prize. A newsletter such as ours should have technical articles such as the one in this issue by Frank Vanslager. Even if you are not a techie your experiences in computing can be valuable to your fellow club members.



I need some help. Please give it.

SBUG Financial Statement  
July 20, 1988

Receipts:	July	Y-T-Date	% Used	Budget
Members dues	60.00	140.00	17.50%	800.00
Disk Library	0.00	95.00	63.33%	150.00
Load80	0.00	40.00	13.33%	300.00
Documentation	0.00	.00	.00%	25.00
Interest	3.30	23.79 *	95.16%	25.00
Miscellaneous	0.00	60.00	30.00%	200.00
Total Receipts	63.30	358.79	23.92%	1500.00

## Disbursements:

Phone	7.58	80.71	53.81%	150.00
Utilities	0.00	.00	.00%	120.00
Printing	0.00	.00	.00%	100.00
Postage	25.00	72.00	55.38%	130.00
P O Box	0.00	39.00	134.48%	29.00
Bank charges	0.00	.00	.00%	24.00
Disk Library	0.00	.00	.00%	120.00
Documentation	0.00	.00	.00%	50.00
Load80 Subscription	0.00	.00	.00%	150.00
SBUG BBS Repairs	0.00	.00	.00%	100.00
Misc. Expenses	0.00	69.00	55.20%	125.00
Total Disbursements	32.58	260.71	23.74%	1098.00
Beginning Cash Balance	741.38	674.02	100.00%	674.02
Net Receipts	30.72	98.08	24.40%	402.00
Ending Balance	772.10	772.10	71.76%	1076.02

\*This amount includes \$2.17 received in 1987 but posted in 1988.

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FOR SALE!

-----

13" AMDEK COLOR II/S RGB MONITOR. TTL INTERFACE. DISPLAYS 16 COLORS. EXCELLENT CONDITION. \$200.--.

12" GORILLA MONOCHROME MONITOR. ANALOG (RCA-TYPE) INTERFACE. AMBER DISPLAY. EXCELLENT CONDITION. \$50.--.

RADIO SHACK LP-VIII DOT MATRIX PRINTER. 8-1/2" CARRIAGE. TRACTOR-, SINGLE-SHEET OR ROLL FEED. 100 CPS, UNIDIRECTIONAL. ALSO WORKS WITH PC-COMPATIBLE COMPUTERS. \$50.--.

CALL HENRY AT 379-9474 FOR FURTHER INFO. EVES. AFTER 5 PM, OR LEAVE MESSAGE ON ANSWERING MACHINE.



## A "REFRESHING" WAY TO GET A FREE SPEEDUP OF PCs AND CLONES

by F. E. Vanslager

In the July 1988 issue of PC Magazine there is an article on changing the memory refresh rate in order to get more speed out of your MS-DOS system. The DEBUG program to do this is as follows:

```
debug
n qfresh.com      ;Set name = qfresh.com
a 100             ;Assemble at 100hex
mov al,74         ;Select timer#1 for a 16 bit
out 43,al         ; number, and to count down in binary
mov al,LL         ;Insert low-byte LL (Normally LL=12hex)
out 41,al
mov al,HH         ;Insert high-byte value HH (Normally = 0)
out 41,al
int 20            ;Exit to Dos
                 ;Blank line to stop assembler
r cx              ;Call cx register
e                ;How many bytes (14decimal) to write to disk
w                ;write the file to disk
q                ;Quit DEBUG
```

You can type in this program without any of the comments following the semi-colons but with your values substituted for LL and HH. When you settle on the values for your system (the author says that any system should be able to use LL=30hex) you can invoke the qfresh.com file in your AUTOEXEC.BAT file. When I experimented, I discovered that my clone system was actually running about 6% *slow* because my Kingtech BIOS chip was using a LL value of 0Ahex rather than the IBM standard of 12hex. When I slowed my refresh rate by a factor of 16 by changing LL to A0hex I found that I could run more than 6% *faster* than a standard system.

Is this safe? When I slowed down the refresh rate by more than an

additional factor of 16 by changing HH to 10, I found that I was beginning to get memory errors. However, when I backed off by a factor of 2, I found that there were no errors during an extended test with the IBM diagnostics program. Therefore, since with LL=A0 and HH=0, the refresh rate is almost a factor of 13 faster than with my safe level, I feel that there is no risk for my non-critical operations-- and I certainly enjoy my 12% system speedup.

If you have no accurate timing program to measure your system speed, you may want to go into BASIC and run the following program both with and without invoking qfresh.com

```
10 PRINT TIME$
20 FOR I=0 TO 390000
30 NEXT I
40 PRINT TIME$
```

Consult with the article in the Productivity section of PC Magazine for more details about dynamic RAM refreshers.

## DO YOU WANT A '386?

by Editor

Probably not. Why not? Well, what do you get with a '386? Easy. Speed and memory-- for the time being. We'll get into the rest of what the '386 offers in a moment. The speed is there even though it's considerably effected by two other factors-- video speed and hard disk speed. Both of these do have their remedies. 386-to-the-MAX for example will swap video ROM memory to faster RAM. Desqview won't do that. A Paul Mace disk cache using expanded memory will speed up hard disk access enormously. So, after you get your '386, and at least 2 Meg of memory, you must also get the aforesaid helpers. Is it really fast? It is.

Is the speed worth the money? It's nice, it really is. On the other hand I was really happy when I went from a Model III to a Model 4. How that Model 4 could fly! Einstein was right, it's all relative.

I still see Desqview as a short term, rather hobby horse substitute for what the '386 needs-- an operating system that will take advantage of it's possibilities. I am powerfully attracted by Concurrent DOS. As things stand now there is no other DOS that will do the job, that will let the '386 chip do the things it can do. What's holding me back? Money. Concurrent DOS costs over \$200.00.

To most of us, the things that the '386 could do with the proper DOS are at best of only occasional use. The speed we have already spoken of. The most often mentioned facility that the '386 offers is multi-tasking. Even for the non-power user this can be a handy thing-- but not really a necessary one. It is easy to imagine skipping from spreadsheet to database to word processor using the multitasking facility. Multitasking as I understand it also means that while one program is processing another could be worked on. With the speed of the '386 that's not really something the ordinary user needs. When I run my-- admittedly tiny-- spreadsheets or small databases the results come in practically immediately. There is no waiting. In that sense I don't think that most users need multitasking any more than I do.

The remaining facility is protected mode. That's a concept I have a hard time getting a handle on. I take it to mean that if I am running a particular program that no other program can interrupt as, for example, SIDEKICK so often does. No one could doubt the handiness of this but so far it isn't useable, it just exists as a concept.

Someday, somewhere (on some far star) someone will write a DOS that will take advantage of all these facilities and others as well. There is no doubt as to the power of the '386 chip, but as things are now there is no software that really takes advantage of it. Until there is the '386 is fun to play with but doesn't really offer many work advantages. Indeed, as I outlined above and as I say in the following article, it's only for the heavy power users and hobbyists like myself.

One final point. I have 2 Megs of RAM. From what I have seen, when the software packages finally arrive that will take advantage of the '386 that isn't going to be enough, and I'm not talking about the monstrous spreadsheet users. I am sure that I am correct when I say that 4 Meg is needed to really work comfortably with the '386 and take advantage of its power.

## DADDY, WHAT COMPUTER SHOULD I BUY?

My expert opinion is frequently sought by people who are on the verge, or think they are on the verge of buying a computer. The people in the latter half of that sentence outnumber the people in the first half by 10 to 1. What makes me an expert? I have a computer and they don't. Nevertheless I think my advice is sound.

Buy a turbo XT. It should have two floppy drives, a 20 Meg HD, 640K RAM and a color monitor.

Why a turbo? The jump in speed from 4.77 to 8, or 10 Mhz in many cases, is considerable. Almost no one sells a 4.77 computer nowadays anyway.

Why two floppies if you have a hard disk? If you've ever had to work with one floppy, you know. There are just too many times when having two floppy drives saves enormous time and effort.

Why a hard disk? If you're going to work effectively, quickly, you have to have a hard disk. At today's prices it's probably worth while paying a little extra and getting a 30 Meg HD. Only a very patient person is going to work with floppies alone. Indeed that person would have to be patient and not too concerned with time.

Why 640K? When I got 48K on my Model III I used to run a 3 line BASIC program that used up gasp!! all that memory just to prove that it could be done. I didn't really need so much memory for any of my regular programs. Nowadays, even a very moderate (as compared to a power) user will need 640K and not infrequently. You just must have it.

Why a color monitor? The world is colored. We are not used to dealing with a black and white world. If you spend many hours at the keyboard, black and white is going to bore you very quickly. If you want a computer strictly for business, I mean only for business, I mean for nothing BUT business, sure, get a monochrome monitor. And you'll be more quickly bored, will tire more quickly than if you had a color monitor.

All of this may be yours for about a thousand dollars. It can almost be said that if you don't have a thousand dollars to invest you don't need a computer at all. Certainly you can buy a computer with a lot of different and lesser specifications and have a lot of fun. That's fun, son, but it's not good business. If indeed you must you can go with one floppy, a 20 Meg hard disk and a monochrome monitor for around \$800.00. With that setup you may get your reward in heaven but not down here.

### HELP COMES TO A STRANDED EDITOR

I have been using "standard printer" for all that I write with both my printers. It works but all you get is 80 columns, no graphics and practically none of the features that printers offer. Then (on his way to the forum?) Cris Oman stopped by and gently showed me the error of my ways. There was surely an error. A long time back and forgotten by me, I had set my Epson 1000 to IBM mode. When I told Word Perfect to use Epson 800 mode there was naturally some confusion.



Chris copied the IBM printer driver to my HD chose it as the printer in use and you have the results below.

@#WordPerfect 5.0

@#Printer Test Document

@#In this paragraph, each word associated with a feature is printed with that feature (e.g., bold, <sup>super</sup>script, <sup>sub</sup>script, and strikethru). Print attributes have been expanded in WP 5.0 to include fine, small, normal, @large, @every large, @extra large sizes of print. Some further additions to the list are italics, shadow, outline, and SMALL CAPS. The default redline method should have a shaded background or a dotted line under the characters.

If a feature described does not appear on your printout, your printer may not have that capability.

<u>Continuous</u>	<u>Double underlining</u>	Text
<u>Non-Continuous</u>	<u>Double underlining</u>	can be
<u>Continuous</u>	<u>Single underlining</u>	flush
<u>Non-Continuous</u>	<u>Single underlining</u>	right
<u>You may also choose to not underline spaces</u>		

Left	Decim.al	Center . . . . .	Right
Tabs	T.abs	Tabs . . . . .	Tabs

This text is left/right indented. Notice that the text is indented from both margins according to the tab settings. The indenting will continue until the "Enter" key is pressed.

(Double spacing) WordPerfect 5.0 integrates text and graphics. A graphic image can be placed anywhere on the page. The image can easily be scaled, moved, and rotated.

(1.5 spacing) Fonts may be mixed and changed randomly without affecting margins, tabs or column definitions. Normal text. Advanced up .08". Normal text.

Advanced down .08". Normal.  
Advance can be used to SPR EA D characters out, or change how

APPEAR. Back to the normal baseline.

## IMPROVED PARALLEL COLUMNS

Parallel columns now extend past a page break. Script writers and others will find this feature to be especially convenient.

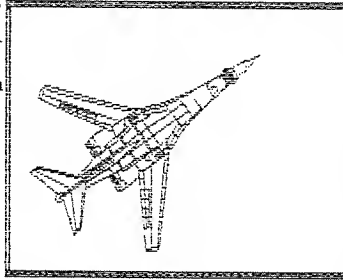
## MASTER DOCUMENTS

The master document feature combines files (e.g., chapters in a book, files on a network) for generating tables of contents, etc.

This paragraph is printed in 8 LPI. We can place this in eight lines per inch by going into Shift F8 and using fixed line height. The rest of the document's line height is fixed at 6 LPI. Already the world's most powerful word processor, WordPerfect continues its tradition of excellence by adding several new features.

that allows you to capture the screen and integrated text and graphics.

The smooth integration of text and graphics in WordPerfect 5.0 makes designing newsletters, reports, and professional documents much easier. A graphic image can be



from any graphic program, converting it to a WordPerfect

Graphics image file. You can then use the image within WordPerfect. This facilitates the use of various graphics programs to create graphics to be used within WordPerfect. 5.0

is designed to work with many of the most popular graphics programs available on the market. The preview feature now lets you display an entire page of text and graphics at once, zoom in for a detailed look, or view facing pages together. WordPerfect is the number 1 selling word processor in the U.S., in Canada, and in six European countries. Research estimates now show that Wordperfect sales account for approximately 40% of the market share for word processors.

Here is a test of line draw, single, double and mixed:



As you can see by page 9, which was in a WP file called "PRINTER.TST", I have a great deal to learn about WP 5.0. I printed page 9 with both Epson and IBM Proprinter modes. Epson wouldn't recognize the footnote.

WP 5.0 is not for the faint of heart. If you write two or three letters a week to your family and friends, I wouldn't suggest WP 5.0. If you're *REALLY* interested in word processing, either in publishing newsletters or in an office environment I think it's hard to beat.

I did get a letter from WP corporation. They tell me they have no driver for my Epson 1000. Now that Chris Oman has shown me the errors of my ways I believe the Epson 800 driver will work. I haven't tried it in 132 column mode yet. They also tell me that they are sending me the 7/1 release of WP 5.0 which is NOT compatible with my present copy. I just hope it's compatible with the numerous macros I have on file. And just what does this free update mean? Does the present release have a lot of problems? Aside from my printer problems I haven't run into them. Of course I haven't gotten into graphics and multiple columns yet.

I am still running my Daisywriter under standard printer (a printout of the test file is on the next page). The aforementioned letter says that they have had no complaints about incompatibilities from their customers who have Daisywriter 2000s. I don't believe they have many customers with Daisywriter 2000s. Daisywriter runs adequately under "standard printer" and not at all under the "Daisywriter 2000" driver.

They also give me a remedy for the problem I had with the words running together. That had straightened itself out even BC. (Before Chris). I still don't know why it started or how it stopped. Apparently it has happened to others because WP Corporation was not surprised by the request for help.

Daisywriter will do subscripts, superscripts, it will advance by 64ths and do a number of other handy things. I don't normally use any of these features but you know how it is-- if you have a rocket that will take you to Hong Kong in an hour, you want it to work even if you never go to Hong Kong.

I said above that I wouldn't recommend WP for the casual user. What would I recommend? ELECTRIC PENCIL. The saying is that your first word processor is always your favorite. That's not the case here. The only good thing about the original ELECTRIC PENCIL was its ease of learning. My real love was ALLWRITE. ELECTRIC PENCIL for MSDOS is easy to learn, quite powerful, and has a very excellent spelling checker.

WordPerfect 5.0  
Printer Test Document

In this paragraph, each word associated with a feature is printed with that feature (e.g., hold, superscript, subscript, and ~~strikeout~~). Print attributes have been expanded in WP 5.0 to include fine, small, normal, large, very large, and extra large sizes of print. Some further additions to the list are *italics*, shadow, outline, and SMALL CAPS. The.default.redline.method should.have.a.shaded.background.or.a.dotted.line.under.the characters.

If a feature described does not appear on your printout, your printer may not have that capability.

<u>Continuous</u>	Double underlining	Text can be flush right
<u>Non-Continuous</u>	Double underlining	
<u>Continuous</u>	Single underlining	
<u>Non-Continuous</u>	Single underlining	
<u>You may also choose to not underline spaces</u>		

Left	Decim.al	Center . . . . .	Right
Tabs	T.abs	Tabs . . . . .	Tabs

This text is left/right indented. Notice that the text is indented from both margins according to the tab settings. The indenting will continue until the "Enter" key is pressed.

(Double spacing) WordPerfect 5.0 integrates text and graphics. A graphic image can be placed anywhere on the page. The image can easily be scaled, moved, and rotated.

(1.5 spacing) Fonts may be mixed and changed randomly without affecting margins, tabs or column definitions. Normal text. Advanced up .08". Normal text. Advanced down .08". Normal. Advance can be used to SPR EA D characters out, or change how they APPEAR. Back to the normal baseline.

The second page of the Print.tst is not printable by a daisywheel printer.

Of course you have noted the errors on the dot matrix version of Print.tst. Those are not my errors. I printed it on my Epson 1000 in both Epson and IBM modes. The IBM (what you see) mode comes out best. I can see that my correspondence with WP Corp. is going to be voluminous. They are being conscientious. I have two letters in hand, one from Ms. Emmie Olsen of customer support and the other from a follow-up checking on Ms. Olsen.

I do intend to reply because I feel that Ms. Olsen's simple statement that they have had no complaints about the Daisywriter driver is not enough. Neither do I accept the statement that they have no driver for the EX-1000. We are not talking about a printer made by Dracula & Co. in Hungarian Transylvania. It is my feeling that in as much as WP 5.0 is so printer specific, they should supply printer drivers for all popular printers.

As far as the Daisywriter goes, I wouldn't really have complained had there not been a specific driver for it. The "Standard Printer" does print as you have seen. Once again, if they supply a driver for the Daisywriter, then it ought to work and work right. It doesn't work. If it worked then I should be able to get some of the power of the Daisywriter that I previously mentioned.



## A HEARTFELT PLEA FROM YOUR EDITOR

Microsoft Mach 20  
IBM PC/XT Speed Enhancement  
By Chris Oman

The Mach 20 Expansion Card by Microsoft Corp. is designed to provide the IBM PC/XT or compatible owner/user with the computer processing performance of the IBM Advanced Technology (AT) class computers. The Mach 20 card can be supplemented with two (2) additional option cards that allow up to 2.5 megabytes of EEMS (LIM 4.0) 16 bit memory to be added and a floppy disk controller that supports the new high capacity disk drives (5 1/4" - 1.2 MB. or 3 1/2" - 1.44 MB). This allows the PC or compatible owner to upgrade his or her system with AT class performance at a very reasonable price (less than \$1,000 total ).

One of the many benefits of belonging to a computer users group is an occasional chance to evaluate prospective new products (both hardware and software) for computers. During the past 30 days, I have had an opportunity to evaluate the Mach 20 accelerator card and other option enhancement cards from Microsoft Corp. of Redmond, Washington. This has been an interesting experience because I have been interested in performance option (accelerator) /cards for quite some time. During the past three years that I have been using the IBM compatible series computers, I have often been frustrated with slow PC/XT system performance while processing a large spreadsheet or sorting a database file. If I was just using the computer for word processing, the computer could easily keep up with my typing and data input. During this same period of time, I have tried various "low-cost" performance enhancements with minor improvements in system performance. Some of these improvements included adding math coprocessor (8087), replacing the 8088 CPU IC with a V20, replacing the XT mother with a "turbo" board, increasing conventional memory to the 640 KB. and adding expanded memory (EMS LIM-3.2). Even with all of these options combined, I was still not satisfied with system performance. So what is a "System Performance/Speed Freek" suppose to do when he is still not satisfied? Ah, now comes the "REAL SYSTEM IMPROVEMENT"! But first, I need to prepare the XT system for the installation of the Mach 20 options.

The Microsoft Mach 20 option board contains a 80286 CPU IC and supporting circuitry to interface with the IBM PC/XT and compatible computer systems. It installs in a single motherboard expansion slot and uses all the standard data bus interface characteristics for communications other IBM compatible expansion cards. Some of these expansion cards include display, hard disk, modem, and serial/parallel cards. Some unique types of option cards may not work properly but I'm not sure as I haven't tested them for compatibility as yet. All software that I have tested, word processing, spreadsheets, databases and communications, seem to work properly without errors. I have also tried "Desqview (V 2.0)" and it is really enjoyable to use with the Mach 20. With the additional option cards, Memory Plus and Disk Plus, the Mach 20 is an excellent upgrade path for owners/users who want the additional performance of an AT class computer without having to buy an additional computer. The only problems that you may encounter is if you do not have an empty "full length" card slot in motherboard and if you do not have at least a 150 watt power supply in your system.

Due to my "past experience" with computers, I consider myself a well-versed computer user, however this has often gotten me into trouble and given me a false sense of security. I sometimes go "astray" by not reading instruction before I start a project. I thought that this time I should try reading the instruction and installation manuals before I actually started taking my system apart to install the Mach 20. Since the accompanying manuals were just a few pages, that I would take the time to at least "browse" through the manuals to get a feel for the size of the task and to see if I had all the required materials. When Microsoft sent the Mach 20 card, they also enclosed the "Memory Plus" and "Disk Plus" options as part of the evaluation package. Each option card comes in its own box with an installation manual. So now I had three (3) boxes, and inside the boxes was the circuit cards (3) and installation manuals. The Mach 20 manual stated that if I was also installing the Memory Plus option to remove all motherboard memory except the basic 256 KB. This way the Memory Plus card will "backfill" system memory from 256 KB to the full 640 KB. In addition, the additional memory installed on the Memory Plus card will be configured as (EEMS LIM 4.0) expanded memory. My Vision of "Desqview" and possible multitasking was increasing my adrenalin and excitement.

I patiently read all three installation manuals (about 80 pages) to make sure I wouldn't blow it when I actually started the installation. After reading the manuals, I unwrapped all 3 IC cards to make sure all the pieces were accounted for and undamaged. Then I was ready to start by removing all these old previous "enhancements" installed in my XT. I then removed all the 256 KB. memory chips in my motherboard and replaced them with 64 KB. memory chips (150 ns speed) to just bring the system to 256 KB. total on the system motherboard. I also removed the original floppy disk controller, I was now ready to install the Mach 20 with the "Memory Plus" and "Disk Plus" options.

All three of the IC cards, Mach 20, Memory Plus and Disk Plus, neatly connect together with both option boards plugging into connectors on the Mach 20 card. The boards connect "piggy back" style so they only take up one slot on the motherboard. The Memory Plus card holds up to 3.5 MB. of memory chips (1.5 MB of 256 KB., and 2 MB. of 1 MB. IC'S). The Mach 20 CPU IC runs at a 8 MHZ. clock rate so 120 ns. memory is suggested, some makes of 150 ns. memory chips will run at this clock speed but not all. The installation of the Mach 20, Memory Plus and Disk Plus option cards are straight forward and well documented if you will take the time to read the manuals.

Overall, I found the Microsoft Mach 20 and option boards to be an asset in improving the performance of an XT based or compatible computer. The circuit cards are well designed and with support for the LIM 4.0 - EEMS (enhanced expanded memory system) standard, they will allow true multitasking software like Desqview to exercise its full potential. The list prices of the Mach 20, Memory Plus and Disk Plus are reasonable (combined less than \$1,000) for the additional benefits they provide. If you shop around, you can probably find them available for less than the full list price which makes them an excellent value.

South Bay TRS-80 Users Group  
P.O. Box 60116  
Sunnyvale, Ca 94088

FIRST CLASS MAIL